What is claimed:

- 1. A method for inducing angiogenesis in a mammal by administering an effective amount of a morphogenic protein; with the proviso that said morphogenic protein is not BMP-2 or GDF-5.
- 2. A method for improving the angiogenic inductive activity of a morphogenic protein in a mammal by coadministering with the morphogenic protein an effective amount of a morphogenic protein stimulatory 10 factor.
 - 3. The method according to claim 2, wherein the morphogenic protein stimulatory factor has additive effects on angiogenesis by the morphogenic protein.
 - 4. The method according to claim 2, wherein the morphogenic protein stimulatory factor has synergistic effects on angiogenesis by the morphogenic protein.
 - 5. The method according to any one of claims 1 to 4, wherein the morphogenic protein is an osteogenic protein that is capable of inducing angiogenesis.
 - 20—6. The method according to any one of claims 1 to 4, wherein the morphogenic protein comprises an amino acid sequence selected from the group consisting of BMP-3, BMP-4, BMP-5, BMP-6, OP-1 (BMP-7), BMP-8, BMP-9, BMP-10, BMP-11, BMP-12, BMP-13, BMP-14, BMP-15, COP-5, COP-25 7 and an amino acid sequence variant thereof.

1,6,5,10

Sulan

7. The method according to any one of claims 1 to 4, wherein the morphogenic protein is a monomeric species.

THE STREET OF THE

- 8. The method according to claim 7, wherein the monomeric species is selected from the group consisting of OP-1 BMP-5, BMP-6, BMP-8, GDF-6, GDF-7 and amino acid sequence variants thereof.
 - 9. The method according to any one of claims 1 to 4, wherein the morphogenic protein comprises a disulfide bonded dimeric species.
- 10 10. The method according to claim 9, wherein the dimeric species comprises a polypeptide selected from the group consisting of OP-1; BMP-5, BMP-6, BMP-8, GDF-6, GDF-7 and amino acid sequence variants thereof.
- 11. The method according to any one of claims 1 to 4, 15 wherein the morphogenic protein is OP-1.
 - 12. The method according to any one of claims 1 to 4, wherein the morphogenic protein is produced by the expression of a recombinant DNA molecule in a host cell.
- 20 13. The method according to any one of claims 2 to 4, wherein the morphogenic protein stimulatory factor comprises at least one compound selected from the group consisting acidic fibroblast growth factor (aFGF), basic fibroblast growth factor FGF (bFGF), transforming
- growth factor- β (TGF- β), transforming growth factor- α (TGF- α), epidermal growth factor (EGF), vascular

20

25

endothelial growth factor (VEGF), endothelial cell growth factor (ECGF), insulin-like growth factor-1 (IGF-1), hepatocyte growth factor (HGF), platelet activating factor (PAF), interleukin-8 (IL-8), placental growth factor (PGF), proliferin, B61, soluble vascular cell adhesion molecule-1 (SVCAM-1), soluble E-selectin, ephrin, 12-hydorxyeicosatetraenoic acid, tat protein of HIV-1, angiogenin, prostaglandin and amino acid sequence variants thereof.

- 14. The method according to any one of claims 2 to 4, wherein the morphogenic protein stimulatory factor comprises at least one compound selected from the group consisting of basic fibroblast growth factor (bFGF), platelet derived transforming growth factor-β1 (TGF-β1)
 15 and amino acid sequence variants thereof.
 - 15. The method according to any one of claims 2 to 4, wherein the morphogenic protein stimulatory factor is selected from the group consisting of basic fibroblast growth factor (bFGF)—and amino acid sequence variants thereof.
 - 16. The method according to any one of claims 2 to 4, wherein the morphogenic protein stimulatory factor is selected from the group consisting of platelet derived transforming growth factor- β 1 (TGF- β 1) and amino acid sequence variants thereof.
 - 17. The method according to any one of claims 2 to 4, wherein the morphogenic protein and the morphogenic

protein stimulatory factor are administered simultaneously to a target locus.

- 18. The method according to any one of claims 2 to 4, wherein the morphogenic protein and the morphogenic protein stimulatory factor are administered separately to a target locus.
 - 19. The method according to claim 17, wherein the target locus is a vascular tissue defect.
- 20. The method according to claim 18, wherein the 10 target locus is a vascular tissue defect.

Mod,